

IFW



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT TRANSMITTAL FORM

Applicant(s): Singer et al.  
Serial No.: 10/755,846  
Filed: January 12, 2004  
For: ILLUMINATION SYSTEM WITH A PLURALITY OF LIGHT SOURCES  
Art Unit: 2881  
Examiner: Not Yet Assigned  
Customer No.: 27623

Attorney Docket No.: 637.0003USQ

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

We are enclosing:

1. Information Disclosure Statement with copies of references;
2. PTO Form 1449;
3. Transmittal letter in duplicate; and
4. Postcard.

Please charge any additional fees or credit any such fees, if necessary to Deposit Account No. 01-0467 in the name of Ohlandt, Greeley, Ruggiero & Perle. A duplicate copy of this sheet is attached.

Respectfully submitted,

Charles N.J. Ruggiero  
Reg. No. 28,468  
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.  
One Landmark Square, 10<sup>th</sup> Floor  
Stamford, Connecticut 06901-2682  
(203) 327-4500

Date: July 26, 2004

**CERTIFICATE OF MAILING**

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE U.S. POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: MAIL STOP AMENDMENT, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450, , ON JULY 26, 2004 .

Jeffrey J. Scepanski  
NAME

SIGNATURE

07/26/04  
DATE



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Singer et al.  
Serial No.: 10/755,846  
Filed: January 12, 2004  
For: ILLUMINATION SYSTEM WITH A PLURALITY OF LIGHT SOURCES  
Art Unit: 2881  
Examiner: Not Yet Assigned  
Customer No.: 27623

Attorney Docket No.: 637.0003USQ

Date: July 26, 2004

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with applicants' duty of disclosure under 37 C.F.R. §1.56, we are enclosing Form PTO-1449 listing information that may be material to the patentability of this application.

We are also enclosing a copy of each of the following citations that are listed on pages 1-2 of the enclosed Form PTO-1449:

U.S. Patent(s): 6,195,201; 6,064,072; 6,396,068; 6,353,470;

U.S. Patent Application(s): 2002/0186811; 2003/0095623; 2003/0043455

European Patent(s): 1434240 A1 (App. No. 99106348.8)

PCT Publication(s): WO 99/57732 (App. No. PCT/EP99/02999)

Articles:

Marc A. Klosner and William T. Silfvast, "High-temperature lithium metal-vapor capillary discharge extreme-ultraviolet source at 13,5 nm" in Applied Optics, Vol. 39, No. 21, July 20, 2000, pp. 3678 – 3682;

Hynn-Joon Shin, Dong-Eon Kim, Tong-Nyong Jee, "Soft X-Ray amplification in a capillary discharge" in Physical Review E, Vol. 50, No. 2 (1994), pp. 1376–1382;

M.A. Klosner et al., Applied Optics Vol. 40, p 4849 - 4851 (2001);

The remaining citations listed on pages 3-7 of the enclosed Form PTO-1449 were either (1) cited by or (2) submitted to the Patent and Trademark Office in priority application Serial No. 09/305,017, filed May 4, 1999, which issued as U.S. Patent No. 6,198,793; Serial No. 09/679,718, filed September 29, 2000, which issued as U.S. Patent No. 6,438,199; Serial No. 10/150,650, filed May 17, 2002; Serial No. 10/201,652, filed July 22, 2002, Serial No. 10/429,927, filed May 5, 2003; and Serial No. 09/627,559, filed July 27, 2000, which issued as U.S. Patent No. 6,570,168. Accordingly, copies of the following references have not been submitted herewith. (37 C.F.R. §1.98(d)).

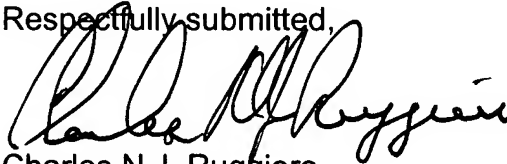
It should be understood that attention has been called to the citations that have been deemed to be pertinent to the claimed present invention. In concluding what was pertinent, the criteria employed was considered most appropriate in light of the invention shown in the present application. However, the Examiner or others may

deem some other criteria to be just as appropriate or more appropriate. Therefore, the Examiner is respectfully urged to review the listed citations and to make the usual careful independent search for other prior art that may be pertinent.

Since this Information Disclosure Statement is being filed prior to the issuance of the first Office Action based on the merits, no petition or fee is required.

Applicants respectfully request favorable consideration and that this application be passed to allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Charles N.J. Ruggiero", written over the typed name.

Charles N.J. Ruggiero

Reg. No. 28,468

Attorney for Applicant(s)

Ohlandt, Greeley, Ruggiero & Perle, L.L.P.

One Landmark Square, 10th Floor

Stamford, CT 06901-2682

(203) 327-4500

CUSTOMER NO.: 27623

Sheet 1 of 7

FORM PTO-1449

Docket Number (Optional)

Application Number

637.0003USQ

10/755,846

INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

Applicant

Singer et al.

Filing Date

01/12/2004

Group Art Unit

2881

(Use several sheets if necessary)

JUL 28 2004

## U. S. PATENT DOCUMENTS

EXAMINER	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,581,605	12/96	Murakami et al.	378	84	
	6,195,201	02/01	Koch et al.	359	366	
	6,064,072	05/00	Partlo et al.	250	504R	
	5,512,759	04/96	Sweatt	250	492.1	
	6,396,068	05/02	Sweatt et al.	250	504R	
	6,353,470	03/02	Dinger	355	71	
	2002/0186811	12/02	Weiss et al.	378	34	
	2003/0095623	05/03	Singer et al.	378	34	

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
					YES	NO
EP 1434240 A1 (99106348.8)	6/04	Europe				X
WO 99/57732 (PCT/EP99/02999)	11/99	PCT				X

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	Marc A. Klosner and William T. Silfvast, "High-temperature lithium metal-vapor capillary discharge extreme-ultraviolet source at 13,5 nm" in Applied Optics, Vol. 39, No. 21, July 20, 2000, pp. 3678 - 3682
	M.A. Klosner et al., Applied Optics Vol. 40, p 4849 - 4851 (2001)
	Hynn-Joon Shin, Dong-Eon Kim, Tong-Nyong Jee, "Soft X-Ray amplification in a capillary discharge" in Physical Review E, Vol. 50, No. 2 (1994), pp. 1376 - 1382

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

CUSTOMER NO.: 27623

Sheet 2 of 7

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number (Optional) <b>637.0003USQ</b>	Application Number <b>10/755,846</b>
	Applicant <b>Singer et al.</b>	
	Filing Date <b>01/12/2004</b>	Group Art Unit <b>2881</b>

### U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2003/0043455	03/03	Singer et al.	359	357	

### FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

### OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)


EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

<b>FORMPTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number (Optional) <b>637.0003USQ</b>	Application Number <b>10/755,846</b>
	Applicant <b>Singer et al.</b>	
	Filing Date <b>01/12/2004</b>	Group Art Unit <b>2881</b>

### U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,195,913	4/1/80	Dourte et al.	350	292	
	4,294,538	10/13/81	Ban	355	51	
	4,389,115	6/21/83	Richter	355	26	
	4,651,012	3/17/87	Clark et al.	250	505.1	
	4,740,276	4/26/88	Marmo et al.	204	7	
	5,148,442	9/15/92	O'Neil et al.	372	71	
	5,222,112	6/22/93	Terasawa et al.	378	34	
	5,353,322	10/4/94	Bruning et al.	378	34	
	5,339,346	8/16/94	White	378	34	
	5,361,292	11/1/94	Sweatt	378	34	
	5,402,267	3/28/95	Fürter et al.	359	727	
	5,439,781	8/8/95	MacDowell et al.	460	311	

### FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	0066295 A1	12/8/82	Europe			Yes	
	0359018 A2	3/21/90	Europe				No
	0939341 A2	9/1/99	Europe			Yes	
	1026547A2	8/9/00	Europe			Yes	

### OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	Murphy et al., "Synchrotron Radiation Sources and Condensers for Projection X-Ray Lithography", APPLIED OPTICS, Vol. 32, No. 34, pp.6920-6929 (1 December 1993)
	"Handbook on Synchrotron Radiation", Ernst-Echard Koch ed., pp.140-145, 1098-1111 (1983)
EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through  
Citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)			Docket Number (Optional) <b>637.0003USQ</b>		Application Number <b>10/755,846</b>		
			Applicant <b>Singer et al.</b>				
			Filing Date <b>01/12/2004</b>		Group Art Unit <b>2881</b>		
<b>U. S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	5,440,423	8/8/95	Ogura	359	365		
	5,512,759	4/30/96	Sweatt	250	492.1		
	5,581,605	12/3/96	Murakami et al.	378	84		
	5,647,664	7/15/97	Hanečka	362	308		
	5,669,708	9/23/97	Mashima et al.	362	341		
	5,677,939	10/14/97	Oshino	378	34		
	5,737,137	4/7/98	Cohen et al.	359	859		
	5,755,503	5/26/98	Chen et al.	353	38		
	5,896,438	4/20/99	Miyake et al.	378	34		
	5,993,010	11/30/99	Ohzawa et al.	353	99		
	5,995,582	11/30/99	Terashima et al.	378	34		
	6,233,039	5/01	Yen et al.				
	6,310,679	10/01	Shiraishi				
<b>FOREIGN PATENT DOCUMENTS</b>							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	11044920A	2/99	Japan				
	403111806A	5/91	Japan				
	406265887A	9/94	Japan				
	1072957	7/00	Europe				
<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
"The Optics of Spectroscopy", Section 3: "Spectrometer Throughout and Etendue", downloaded from the internet Website: <a href="http://18/httpwww.jyhoriba.co.uk/jy/oos/oos_ch3.htm">http://18/httpwww.jyhoriba.co.uk/jy/oos/oos_ch3.htm</a>							
EXAMINER				DATE CONSIDERED			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through Citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							



<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)			Docket Number (Optional) <b>637.0003USQ</b>		Application Number <b>10/755,846</b>		
			Applicant <b>Singer et al.</b>				
			Filing Date <b>01/12/2004</b>		Group Art Unit <b>2881</b>		
<b>U. S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	2001/0030740	10/01	Mori et al.				
	2002/0009178	Jan 2002	Dinger et al.				
	2002/0041368	04/02	Ota et al.				
	RE38,438	2/04	Takahashi				
	4,688,932	8/87	Suzuki				
	5,071,240	12/91	Ichihara et al.				
	5,459,547	10/95	Shiozawa				
	5,715,084	2/98	Takahashi et al.				
	5,796,524	8/98	Oomura				
	5,805,356	9/98	Chiba				
	5,846,678	12/98	Nishigori et al.				
	5,963,305	10/99	Mizouchi				
<b>FOREIGN PATENT DOCUMENTS</b>							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
<b>OTHER DOCUMENTS</b> (including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER				DATE CONSIDERED			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through Citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)			Docket Number (Optional) <b>637,0003USQ</b>		Application Number <b>10/755,846</b>	
			Applicant <b>Singer et al.</b>			
			Filing Date <b>01/12/2004</b>		Group Art Unit <b>2881</b>	
<b>U. S. PATENT DOCUMENTS</b>						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,081,319	6/00	Ozawa et al.			
	6,198,793	3/01	Schultz et al.			
	6,208,707	3/01	Oshino			
	6,229,647	5/01	Takahashi et al.			
	6,236,449	5/01	Tanitsu			
	6,266,389	7/01	Murayama et al.			
	6,268,904	7/01	Mori et al.			
	6,325,514	12/01	Yamamoto			
	6,335,786	01/2002	Shiraisi			
	6,339,467	01/2002	Sato			
	6,400,794	6/02	Schultz et al.			
<b>FOREIGN PATENT DOCUMENTS</b>						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES NO
<b>OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)</b>						
EXAMINER			DATE CONSIDERED			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through Citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number (Optional) <b>637-0003USQ</b>	Application Number <b>10/755,846</b>
	Applicant <b>Singer et al.</b>	
	Filing Date <b>01/12/2004</b>	Group Art Unit <b>2881</b>

### U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,438,199	8/02	Schultz et al.			
	6,507,440	1/03	Schultz			
	6,583,937	6/03	Wangler et al.			
	6,594,334	7/03	Ota			

### FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

### OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)


EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through

Citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.